standards setting bodies.[176] However, the Commission concluded that "use of generic power spectral density ("PSD") masks and/or a calculation-based approach appears to be the best means to address spectrum compatibility. Taken together, these two mechanisms should protect network integrity while maximizing deployment of new competing technologies."[177]

A similar conclusion is reasonable in the context of the subloop. Accordingly, ILECs should be required to provide all transmission speeds and QoS classes even if they do not utilize them themselves. ILECs should not be permitted to hide behind the convenient excuse of service degradation, interference, or congestion without providing the Commission with specific evidence thereof. Therefore, the Joint Commenters submit that the Commission should adopt the same presumption of acceptability for deployment and standards regarding degradation of signals in this proceeding as it did in the *Line Sharing Order*.[178] All service levels should be priced at forward-looking, incremental cost. Where there is imminent risk of inadequate capacity to meet future demand, ILECs should be required to install the appropriate electronics to provide as much capacity on the facility as the loop is practically capable of supporting.

The Act allows CLECs to determine the services they wish to provide over UNEs, subject only to the technology-neutral definitions of the Act. No basis exists within the Act for discriminating against a CLEC based on the service offerings provided by CLEC, or the manner

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176 *Id.*

177 *Id.*

178 In the *Line Sharing Order* the Commission codified rules that govern when a loop technology is presumed acceptable for deployment. The circumstances include when the technology: (1) complies with existing industry standards; (2) has been approved by an industry standards body, the Commission, or any state commission; or (3) has been successfully deployed by any carrier without significantly degrading the performance of other services.

in which the CLEC decides to provide those services. The Commission should make these obligations clear.

VIII. IN ORDER TO FACILITATE SUBLOOP UNBUNDLING, THE COMMISSION SHOULD MODIFY ITS RULES TO CLARIFY THE OBLIGATION OF ILECS TO PROVIDE PHYSICAL COLLOCATION AT ALL REMOTE LOCATIONS, INCLUDING REMOTE TERMINALS, CONTROLLED ENVIRONMENTAL VAULTS, HUTS AND CABINETS

In the *Fifth FNPRM* the Commission seeks comment on whether deployment of new network architectures necessitates any modifications to, or clarification of, its rules.[179] The Joint Commenters submit that the deployment of new network architectures, including fiber transmission facilities, increasingly deeper into the network and closer to the end-user makes necessary the re-examination of the Commission's unbundling and collocation rules. As the comments of competitive providers of advanced services in the Project Pronto proceeding indicated, their ability to obtain nondiscriminatory access to the remote terminal through, principally, collocation is increasingly critical, as the remote terminal gains primacy in the evolving telecommunications network.[180] Indeed, the Commission itself has observed that "the remote terminal has, to a substantial degree, assumed the role and significance traditionally associated with the central office."[181]

As discussed below, the Joint Commenters submit that the Commission should modify its rules to clarify: 1) the obligation to provide physical and virtual collocation at any remote premises; 2) ensure the ability of competitive carriers to cross-connect at any remote

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179 *See Fifth FNPRM*, ¶ 123.

180 *See* ALTS Comments, CC Docket No. 98-141, at 12 (filed Mar. 3, 2000); DATA Comments, CC Docket No. 98-141, at 17 (filed Mar. 3, 2000); Prism Comments, CC Docket No. 98-141, at 16 (filed Mar. 3, 2000).

181 *UNE Remand Order*, ¶ 218.

terminal; 3) provide nondiscriminatory access to OSS interfaces necessary to order subloops; 4) ensure that CLECs have nondiscriminatory access to remote loop testing ability; and 5) adopt rules establishing a "SEEL" consisting of the copper subloop distribution and the fiber feeder with multiplexing.

A. RECENT DEVELOPMENTS UNDERSCORE THE NEED FOR COLLOCATION IN REMOTE TERMINALS

The most recent event highlighting the evolution of the telecommunications network and the need for corresponding Commission rule changes was SBC's announcement of "Project Pronto"[182] and its subsequent petition for modification of the SBC Merger Conditions.[183] The centerpiece of Project Pronto is the deployment of 20,000 new or upgraded remote terminals, in conjunction with the deployment of an overlay network architecture consisting of "Next Generation" digital loop carrier ("NGDLC") systems installed at the remote terminal, as well as the deployment of additional fiber transmission facilities between its central offices and remote terminals.

CLECs, such as xDSL services, must have continued access to copper loop facilities in order to provide advanced services to their customers, as discussed above.[184] Project Pronto and similar initiatives ostensibly will bring advanced services to a larger number of ILEC customers. However, the same architecture that brings fiber closer to end user premises will, by

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182 SBC Communications, Inc., *SBC Launches $ 6 Billion Broadband Initiative* (Oct. 18, 1999) (disseminating information about SBC's Project Pronto initiative to the press) (*SBC Project Pronto Press Release*). *See* Communications Daily, *SBC Details $ 6 Billion Spending Plan to Increase Broadband Access*, 1999 WL 7580611 (Oct. 19, 1999).

183 *See* February 15, 2000, SBC letter requesting an interpretation, waiver, or modification of the *Merger Conditions* to allow its incumbent LECs to own equipment at 2 ("*SBC Waiver Request*").

184 *See* Section III. C.

eliminating or severely diminishing the supply of homerun copper loops, simultaneously threaten the ability of competing providers of advanced services to compete for advanced services customers. As the Commission has acknowledged:

> in cases where the incumbent multiplexes its copper loops at a remote terminal to transport the traffic to the central office over fiber DLC facilities, a requesting carrier's ability to offer xDSL service to customers served over those facilities will be precluded, unless the competitor can gain access to the customer's copper loop before the traffic on that loop is multiplexed.[185]

Unless the Commission amends its rules to ensure both nondiscriminatory access to remote terminals and the maintenance of the existing infrastructure used to reach consumers, the deployment of fiber-fed remote terminals will harm competition and will slow the deployment of advanced services technology in contravention of Sections 251 and 706 of the Act.[186] In order to avoid short-circuiting the deployment of advanced services and technologies, the Commission must ensure that its unbundling and collocation rules do not distinguish between (i) central office-based services and technologies and (ii) remote terminal-based services and technologies. Countenancing ILEC efforts to carve a "remote terminal exception" out of the Act would not only be contrary to the Act's technologically neutral underpinnings, but it would hobble the ability of competing carriers to provide both POTS and advanced services.

In adopting the Order modifying the *SBC/Ameritech Merger Conditions* in which Project Pronto was discussed, the Commission took pains to acknowledge that:

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185 *UNE Remand Order*, ¶ 218.

186 Pub. L. 104-104, 110 Stat. 153, Title VII, § 706 (Feb 8, 1996), *codified at* 47 C.F.R. § 157, Note.

> "we are examining issues relating to competitive access to remote terminals in a general rulemaking proceeding.[187] Although that rulemaking will not alter our determination here to permit SBC's incumbent LECs to own the plug-in cards and associated OCDs [in its remote terminals], SBC will be bound by any rules ultimately developed in that proceeding that affect the way in which SBC's incumbent LECs provide access to remote terminals. Nothing we do in this Order is intended to prejudge in any way the outcome of that rulemaking."[188]

Accordingly, the Joint Commenters ask the Commission to amend its collocation rules as described below.

B. THE ACT AND THE COMMISSION'S COLLOCATION RULES REQUIRE THAT ACCESS TO THE SUBLOOP BE PROVIDED ON A NON-DISCRIMINATORY BASIS

The Act and existing Commission rules impose upon ILECs the duty to provide subloops to any requesting CLEC. This obligation is dual: section 51.319(a)(2) of the Commission's rules requires ILECs to provide "nondiscriminatory access, in accordance with §51.311 and Section 251(c)(3) of the Act, to the local loop and subloop, including inside wiring owned by the incumbent LEC, on an unbundled basis to any requesting telecommunications carrier for the provision of a telecommunications service."[189] Specifically, in the *UNE Remand Order,* the Commission expanded its definition of a loop "to include all features, functions, and capabilities of the transmission facilities, including dark fiber and attached electronics [excluding DSLAMS]."[190] This requirement extends to the subloop, that portion of the loop extending from

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187 *See* In the Matter of Ameritech Corp., Transferor and SBC Communications, Transferee for Consent to Transfer Control of Corporations Holding Commission Licenses and Lines Pursuant to Sections 214 and 310(d) of the Communications Act and Parts 5, 22, 24 25, 63 90, 95 and 101 of the Commission's Rules, CC Docket 98-141, *Second Memorandum Opinion and Order*, FCC 00-336 (rel. Sept. 8, 2000). ("*Project Pronto Order*").

188 *Project Pronto Order*, ¶ 29.

189 47 C.F.R. § 51.319(a)(1).

190 *UNE Remand Order*, ¶ 167; 47 C.F.R. § 51.319(a)(1).

a remote access terminal to the customer's premises, without which carriers cannot "minimize their reliance on the incumbents' facilities" in order to reach customers.[191] The Commission indicated that:

> Incumbents must provide unbundled access to the high frequency portion of the loop at the remote terminal as well as the central office. Our subloop unbundling rules and presumptions allow requesting carriers to access copper wire relatively close to the subscriber, which is critical for a competitive carrier to offer services using xDSL technology over the high frequency network element.[192]

In addition, the Commission has required that ILECs "provide competitors with access to unbundled loops regardless of whether [the ILEC] uses integrated digital loop carrier technology, *or similar remote concentration devices*, for the particular loop sought by a competitor."[193]

The second basis for the requirement that ILECs provide access to the subloop is Section 51.311 of the Commission's rules. Section 51.311 requires that ILECs provide "access to such unbundled network element[s], that [is] at least equal in quality to that which the incumbent LEC provides to itself." However, the ability of competitive carriers of advanced services to obtain the requisite access to the subloop is threatened by Project Pronto-type initiatives. Indeed, in granting the modification to the *SBC Ameritech Merger Conditions*, the Commission acknowledged that "SBC's Advanced Services Affiliate will no longer be seeking collocation in remote terminals on the same terms (or same scale) as it otherwise would have because it will have no need to collocate equipment in remote terminals. As a result, competing

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191 *UNE Remand Order*, ¶ 205; 47 C.F.R. § 51.319(a)(2).

192 *See Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, 14 FCC Rcd 20912, ¶ 91 (Dec. 9, 1999) ("*Line Sharing Order*"); *UNE Remand Order*, at ¶¶ 207, 217-18.

193 *See Local Competition Order*, 11 FCC Rcd 15499, ¶ 383 (1996) (emphasis added); *see UNE Remand Order*, ¶ 218

carriers would effectively lose the right to obtain similar collocation arrangements on nondiscriminatory rates, terms, and conditions."[194]

Accordingly, the Joint Commenters urge the Commission to modify its collocation rules to make crystal clear the obligation that ILECs have to provide collocation at any remote terminal, controlled environmental vault, hut, or cabinet in order to ensure that subloops are accessible to any carrier, for any service, on a just, timely and nondiscriminatory basis.

C. PHYSICAL COLLOCATION AT REMOTE PREMISES IS TECHNICALLY FEASIBLE AND NECESSARY

Collocation at the remote terminal is technically feasible and necessary to achieve the objectives of Sections 251(c)(2) and 251(c)(3). The Commission should amend its rules expressly to recognize this reality. Indeed, in establishing "a rebuttable presumption that the subloop can be unbundled at any accessible terminal in the outside loop plant" the Commission tacitly recognized that remote terminal collocation is technically feasible.[195] The Joint Commenters submit that now the Commission must amend its collocation rules explicitly to require physical collocation at the remote premises.

The Commission already has a sufficient record to amend its rules as the Joint Commenters propose. Indeed, the Commission stated in the *UNE Remand Order* that "we intend

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194 *Project Pronto Order* at ¶ 24. In the *SBC/Ameritech Merger Order* at n.674 the Commission noted that the Advanced Services Affiliate "will wait in line for collocation, petition to open closed offices, and otherwise deal with the same collocation and OSS implementation problems experienced by competitive LECs."

195 *UNE Remand Order*, ¶ 223. In tacitly requiring remote terminal collocation and rejecting ILEC claims that such collocation is not technically feasible, the Commission noted that "incumbent LECs raised similar doubts as to whether collocation would be feasible at central offices. As indicated by the number of collocation arrangements in place today, these doubts were not well-founded." *UNE Remand Order*, ¶ 221.

to make collocation available at all accessible terminals on the loop, [although] we acknowledge that the incumbent's network was not designed to house additional equipment of competitors."[196] Nonetheless, the Commission's rules unequivocally require that ILECs allow competitors to collocate in "all buildings or similar structures owned or leased by the incumbent LEC that house LEC network facilities."[197] Obviously, then, this requirement includes remote terminals.

However, in deploying new network topologies, such as those contemplated by Project Pronto, ILECs seem to be attempting to carve out exceptions for the requirement that they permit collocation in remote terminals, or similar structures. SBC's petition for waiver of the *Merger Conditions* emphasized that "the physical space limitations of RTs" will have the effect of *precluding collocation for all but a few CLECs*, and that moreover, the new remote terminals slated to be deployed by SBC as part of Project Pronto will have "little or no excess space [for collocation]."[198] SBC, while acknowledging its collocation obligations under the Commission's rules, is frank in its stark evaluation of the opportunity for competitors to collocate at the remote terminal. SBC admits, in essence, that under the configuration now blessed by the Commission, the deployment of Project Pronto will not accommodate collocation in any commercially meaningful way. In granting SBC's request for waiver of the *SBC/Ameritech Merger Conditions*, the Commission merely required SBC to collaborate with the competitive industry to address and solve the collocation issues presented by the deployment of Project Pronto.[199] However, in this rulemaking the Commission must amend its rules to

196 *UNE Remand Order*, ¶ 221.

197 *Local Competition First Report and Order*, ¶ 573.

198 *SBC Waiver Request*, 2 (emphasis added).

199 *Project Pronto Order*, ¶ 37.

clarify that SBC, and indeed all ILECs, must provide collocation in remote terminals, CEVs, and huts.

Specifically, the Commission must unequivocally state that the obligation to provide physical collocation does not end at the central office. Rather, the same exact obligations applicable to central office collocation are applicable to remote terminals and associated structures, including cost allocation and existing space allocation rules. The requirements of Section 251(c)(6) and the Commission's rules, including the requirement to impose only cost-based rates for collocation facilities[200] and the obligation to provision collocation space on a first-come, first-served basis apply with equal force to remote terminals. Section 251(c)(3) cannot be fully implemented nor its purposes fully served absent such interconnection rights. Therefore, the Commission must amend its rules in order to eliminate any question in that regard. ILECs deploying Project Pronto-type proposals, which cite increasingly small cabinets and remote terminals as a reason for them to be granted an exception from the Commission's collocation rules, must be set straight. The Commission must not allow ILECs deploying fiber-fed remote terminals to be the arbiters of the Commission's collocation rules. Rather, with the trend toward smaller, smarter equipment and the corresponding decrease in the amount of space necessary to allow physical collocation, the ability to collocate at the remote terminal in accordance with the Commission's rules is even more uncomplicated.

The Joint Commenters propose that the Commission require that ILECs reserve, at a minimum, 50% of space in new remote premises (i.e., remote terminals, CEVs, cabinets and huts that house ILEC equipment) for use by CLECs to physically collocate their equipment. In

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200 *Local Competition First Report and Order*, ¶¶ 570-581, *Advanced Services First Report and Order*, ¶¶ 20-24.

existing remote premises, all remaining available space must be reserved for such purposes, not to exceed 50% of the total space in the presmises.

In addition, the Commission should require ILECs to allow competing carriers to place their own line cards in remote terminals. Even where physical collocation space is available, it may be cost prohibitive to collocate a traditional DSLAM at a remote terminal. Alternatively, the means to connect the DSLAM to the unbundled fiber feeder network element may not be commercially viable. The Joint Commenters note that Illinois has ordered Ameritech to install Covad's and Rhythms' line cards in Ameritech's remote terminals.[201] Where equipment is not capable of being physically collocated within same remote premises due to interference or size restrictions, the Commission should expressly require that collocation arrangements must be made available on ILEC-controlled premises adjacent to the remote terminals and CLECs should automatically be granted easements or access to same rights of way available to ILECs. Only by amending its rules in this fashion can the Commission ensure that the procompetitive goals of the Act, including Section 251(c) and Section 706, are met.

D. VIRTUAL COLLOCATION AT REMOTE PREMISES SHOULD BE AVAILABLE AS AN OPTION TO BE EXERCISED AT THE REQUESTING CARRIER'S – NOT THE ILEC'S – DISCRETION

The Joint Commenters submit that the Commission should amend its rules to specifically and unequivocally provide competitive providers of advanced services with the legal right to elect to virtually collocate – solely at their option – equipment at all accessible terminals on the loop. Like the obligation to provide physical collocation at remote premises, the

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201 *See* Petitions of Covad Communications Co. and Rhythms Links, Inc. for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Amendment for Line Sharing to the Interconnection Agreement with Illinois Bell (continued...)

Commission has tacitly recognized the rights of CLECs to virtually collocate equipment at remote premises, noting in the *UNE Remand Order* that "in some cases, technicians may not need to enter the cabinet or vault at all because virtual collocation arrangements will satisfy the needs of all parties."[202] Under Section 51.321(b) of the Commission's rules, CLECs have the right to obtain access to UNEs through any technically feasible method, including either physical or virtual collocation. Specifically, Section 51.321(b) provides, in relevant part, that: "technically feasible methods of obtaining interconnection or access to unbundled network elements include, but are not limited to: physical collocation and virtual collocation at the premises of an incumbent LEC;" and that an "incumbent LEC that denies a request for a particular method of obtaining interconnection or access to unbundled network elements on the incumbent LEC's network must prove to the state commission that the requested method of obtaining interconnection or access to unbundled network elements at that point is not technically feasible."[203] Therefore, under the Commission's existing rules, ILECs already must provide virtual collocation at the CLEC's option. However, in the Joint Commenters' experience, ILECs continue to insist that virtual collocation is available only at the ILEC's option. Accordingly, the Commission should amend its rules in order to eliminate any room for argument from the ILEC that a CLEC, at its option, has the right to virtually collocate equipment.

(...continued)
Telephony Company d/b/a Ameritech Illinois, Docket Nos. 00-0312/00-0313, Arbitration Decision, Aug. 17, 2000, at 32.

202 *UNE Remand Order*, ¶ 221.

203 47 C.F.R. § 51.321(b) and (d).

The conventional wisdom holds that physical collocation is inherently superior to virtual collocation. In certain circumstances, however, virtual collocation may be preferable for particular CLECs. Although the Commission has long recognized that "interconnection through physical collocation is the optimal means to realize [the] benefits of [expanded interconnection]," it acknowledges that "virtual collocation also produces [the] benefits [of physical collocation] and is in the public interest."[204] CLECs may seek virtual collocation arrangements for a number of reasons, including to take advantage of potential efficiencies in maintenance, operations or testing. Therefore the Commission should amend its rules to provide that CLECs have the right to exercise the option to virtually collocate, even if physical collocation is possible, including at the remote terminal. Such rights should include, but not be limited to, the right place ILEC-purchased line cards in remote terminals, and should be available upon request to CLECs. Moreover, in promulgating its rules, the Commission should not require transfer of title of collocated equipment to the ILEC. Furthermore, the Commission should make explicit that all rates for ILEC-provided installation, maintenance and repair should be cost-based.

E. THE ABILITY TO CROSS CONNECT MUST BE PROVIDED AT THE REMOTE TERMINAL

In the *Fifth FNPRM*, the Commission seeks comment on the technically feasible points for accessing copper distribution portion of the loop and the fiber feeder portion of the loop at remote terminal locations; and specifically, whether ILECs should be required to modify

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204 *See Expanded Interconnection With Local Telephone Company Facilities*, 9 FCC Rcd 5154, ¶ 10 (1994) ("*Expanded Interconnection Order*"); *see also Special Access Expanded Interconnection Order*, 7 FCC Rcd at 7378; *Switched Transport Expanded Interconnection Order*, 8 FCC Rcd at 7383.

their facilities to allow carriers to interconnect and access the subloop at the remote terminal.[205] The Joint Commenters submit that the Commission should clarify that ILECs must allow competitors to cross connect at the remote terminal on the same basis that cross connection is allowed at the central office. Moreover, as demonstrated above, the Commission should clarify that CLECs should be able to cross connect to one another.

In the *Local Competition First Report and Order*, the Commission concluded that ILECs must provide cross-connect facilities between an unbundled loop and a requesting carrier's collocated equipment.[206] The Commission reaffirmed this obligation in the *UNE Remand Order* and required that charges for cross-connect facilities meet the cost-based standard of section 252(d)(1).[207] Further, the Commission reiterated that the terms and conditions of providing cross-connect facilities must be reasonable and nondiscriminatory pursuant to section 251(c)(3).[208] The Commission recognized that "such a requirement is needed wherever a competitor seeks access to the loop, because cross-connection offers a potential bottleneck, and incumbents may have the incentive to impose unreasonable rates, terms, and conditions for cross-connect facilities."[209]

The Commission's analysis applies with equal force to cross connections that occur at the remote terminal. Failure to require ILECs to allow competitors to access the subloop at the remote terminal would hobble the ability of competitors to service customers just as it would if the Commission failed to provide access to the loop at any other bottleneck point in

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205 *Fifth FNPRM*, ¶ 133.

206 *See Local Competition First Report and Order*, ¶ 386.

207 *UNE Remand Order*, ¶ 179.

208 *Id.*.

209 *Id.*

the network. Granting ILECs a monopoly over the subloop is in direct conflict with the Commission's cross connect analysis as well as the letter and spirit of the Act. In contrast, requiring cross-connects at the remote terminal will further the Act's purposes including promoting the rapid introduction of advanced services into all markets, the promotion of facilities-based competition, investment, and innovation, and deregulation.

The Joint Commenters therefore submit that the Commission should amend its rules to specifically require that cross connections at any remote premises be allowed, and that such cross connections should be "internal" (*i.e.*, in the remote terminal). However, if adjacent collocation must be used, the Commission's rules should mandate that such adjacent arrangements be provided in such a way that cross-connections to UNEs at a remote terminal from adjacent locations are possible. Furthermore, the Joint Commenters submit that remote terminal cross-connections must be priced the same way as central office cross connections, that is, in compliance with Section 251(d)(1).

F. THE COMMISSION SHOULD AMEND ITS RULES TO REQUIRE ILECS TO PROVIDE NONDISCRIMINATORY ACCESS TO OSS INTERFACES NECESSARY TO ORDER SUBLOOPS AND ENSURE THAT CLECS HAVE NONDISCRIMINATORY ACCESS TO REMOTE LOOP TESTING FUNCTIONS

In the *Fifth FNPRM* the Commission sought comment on what modifications, if any, to the Commission's rules governing ILECs's operational support systems ("OSS") are necessary in order to ensure CLECs nondiscriminatory access under section 251(c)(3) for purposes of placing orders for loops and subloops, including the features, functions, and capabilities of the fiber feeder portion of the loop.[210] In addition, the Commission sought

[210] *Fifth FNPRM*, ¶ 128.

comment on operational issues stemming from the deployment of fiber-fed remote terminal architectures, including its effects on the ability of carriers to test and monitor loop and subloop facilities and equipment.[211] The Joint Commenters submit that the Commission must amend its rules to ensure that, as next generation architectures are deployed, competitive providers of advanced services are guaranteed nondiscriminatory access to all OSS functions necessary to place orders for all features and functions of the fiber feeder portion of the subloop. Further, the Commission must amend its rules to ensure that CLECs have access to the remote subloop testing functions on a nondiscriminatory basis, and are capable of performing the testing function on their own behalf to the extent technically feasible and that the ILECs possess the same ability.

The Commission recognized in its *Local Competition First Report and Order* that nondiscriminatory access to OSS "is essential to promote viable competitive entry."[212] Therefore, the Commission must ensure that the appropriate OSS functionalities are available to all CLECs providing competitive services through ILEC-owned remote terminals, and specifically, that CLECs are able to gain access to all OSS functions necessary to place orders for all features and functions of the fiber feeder portion of the subloop. ILECs will predictably trot out their usual array of arguments that such OSS functionality is not technically feasible. As it has in the past, the Commission should see through these smokescreens. In ensuring that ILECs meet the obligation to provide CLECs ordering capability for the subloop and its features and functions, the Commission should take an approach similar to the one it took in the *Line*

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211 *Id.*

212 *Local Competition First Report and Order*, ¶ 516.; *see also SBC Texas* Order, CC Docket No. 00-65, *Memorandum Opinion and Order*, FCC 00-238 (rel. June 30, 2000); *Bell Atlantic New York Order*, 15 FCC Rcd at 3989-90; *BellSouth South Carolina Order*, 13 FCC Rcd at 585.

Sharing Order where the Commission ordered ILECs to "work with competitive LECs on an ongoing basis to design, implement, and maintain efficient and effective OSS interfaces . . . [that provide access to] the loop in the same ordering and provisioning time intervals that the incumbent provides for its own xDSL-based service" and that such OSS interfaces be developed on a collaborative basis.[213]

In addition, the Commission should require that such OSS interfaces be made available no later than 180 days following the release of the Commission's order in the *Fifth FNPRM*.[214] Further, as it did in the *Line Sharing Order*, the Commission should admonish the BOCs that "that a failure to implement OSS modifications within the time frame we contemplate in this Order could be grounds for finding that a BOC is not providing nondiscriminatory access to unbundled network elements under section 271 of the Act."[215]

Besides having nondiscriminatory access to ordering functionalities, once loops are ordered and provisioned, CLECs must have the ability to perform testing of loops to the same extent as the ILEC. The Joint Commenters submit that in order to comply with the requirement that ILECs provide nondiscriminatory access to UNEs pursuant to Section 251(c)(6) of the Act, the ILECs must provide access to the same remote loop testing functionality as the ILECs make available to themselves. The Commission has a track record of recognizing and enforcing such

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213 The Commission noted that the OSS development plan should: "include specific details of the process including, a timeline outlining how the collaborative effort will proceed, with milestones for resolution of issues, and the names and all necessary contact information for the employee who will be responsible for addressing business complaints that arise in the collaboration process and during the negotiation of the relevant interconnection agreements or amendments." *Line Sharing Order*, ¶ 130.

214 *Line Sharing Order*, ¶ 130.

215 *Line Sharing Order*, ¶¶ 106-107.

obligations.[216] The Commission recognized such an obligation in the *Line Sharing Order*, rejecting a proposal that CLECs be required to rely on the incumbent LEC's testing of loops in a line sharing arrangement.[217] The Commission noted that the inability to perform testing on its own behalf, or in a less efficient way than the ILEC, "creates an opportunity for discriminatory incumbent LEC activity, such as the imposition of artificial delays and requirements for unnecessary and costly manual intervention by either the competitive LEC or incumbent LEC."[218] Accordingly, the Commission concluded that:

> *We stress that incumbents may not use their control over loop testing access points and mechanisms for anti-competitive or discriminatory purposes,* and that we will remain attentive and ready to respond to any reported anti-competitive incidents relating to competitive LEC access to loop testing mechanisms.[219]

Similarly, the Commission should apply the same obligation to ILECs in the context of remote terminals, and ensure that CLECs do not suffer discrimination due to an inability to conduct their own testing of loops provisioned through remote terminals. Moreover, the Commission must amend its rules to require that CLECs have nondiscriminatory access to fiber feeder plant (i) in conjunction with copper distribution plant and any attached electronics, or (ii) as a subloop element separate from copper distribution.

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216 In the *Bell Atlantic-New York Order,* the Commission recognized the importance of the ability of competing carriers to provision and test their own xDSL loops. *See Bell Atlantic New York Order*, ¶ 319.

217 *Line Sharing Order*, ¶ 117

218 *Id.*.

219 *Line Sharing Order*, ¶¶ 117-118 (emphasis added).

G. THE COMMISSION SHOULD ADOPT A NEW BROADBAND UNE, THE SUBLOOP ENHANCED EXTENDED LOOP ("SEEL")

In the *Fifth FNPRM,* the Commission sought comment generally on "whether the deployment of new network architectures necessitates any modification to or clarification of the Commission's rules concerning subloops, as well as those pertaining to line sharing."[220] The Joint Commenters submit that in addition to the other modifications to the Commission's rules discussed in these comments, the Commission should amend its rules and establish an "intraloop EEL" known as the Subloop Enhanced Extended Loop or "SEEL" consisting of : 1) the copper subloop distribution; and 2) the fiber subloop feeder, with multiplexing. Establishment of the SEEL is necessary to guarantee that the unbundled loop is capable of supporting advanced services, consistent with the Commission's unbundling and nondiscrimination rules which entitle CLECs to the full features, functionalities, and capabilities of the loop, regardless of transmission media or existence of remote concentration devices or other loop electronics.

In the *UNE Remand Order* in ordering that the subloop be made available as a UNE, the Commission concluded that lack of access to unbundled subloops "materially diminishes a requesting carrier's ability to provide services it seeks to offer," and that

> access to subloop elements is likely to be the catalyst that will allow competitors, over time to deploy their own complementary subloop facilities, and eventually to develop competitive loops. Lack of access to subloops discourages competitive LECs from attempting to combine their won feeder plant with the incumbent distribution plan to minimize their reliance on the incumbents' facilities.[221]

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220 *Fifth FNPRM,* ¶ 123.

221 *UNE Remand Order,* ¶ 205.

As the Commission acknowledged in the *Fifth FNPRM*, since the release of the *UNE Remand Order* "there have been a number of developments, including new product introductions."[222] The Joint Commenters agree with the Commission that new developments, including the announcement of the plan to deploy on a massive basis, remote terminals in conjunction with DLC architecture, necessitates that the Commission establish the SEEL.

In light of the penetration of fiber deeper into the neighborhood under Project Pronto-type initiatives, the SEEL is the necessary analog of the EEL. When requiring that the EEL be made available in those areas where ILECs have withdrawn access to unbundled switching element, the Commission recognized that the EEL levels the competitive playing field by allowing CLECs "to aggregate loops at fewer collocation locations and increase their efficiencies by transporting aggregated loops over efficient high-capacity facilities to their central switching location. Thus, the cost of collocation can be diminished through the use of the EEL."[223] The establishment of a "SEEL" would provide similar efficiencies by obviating the need for competitive providers of advanced services to collocate at each and every remote terminal (which, as noted above, ILECs admit have very limited space for collocation) serving customers that competitive providers wish to reach.[224]

The SEEL meets the 251(d)(2)(B) "impair" standard for unbundling.[225] In the *UNE Remand Order* the Commission concluded that the failure to provide access to a non-

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222 *Fifth FNPRM*, ¶ 119.

223 *UNE Remand Order*, ¶ 288.

224 That is not say that the Commission must not provide both collocation at remote terminals as we as the SEEL.

225 The Section 251(d)(2)(A) "necessary" standard modifies only those elements that are "proprietary in nature." Because no component of the Broadband UNE is "proprietary in nature" it is unnecessary to undertake an analysis of the applicability of that section to the (continued...)

proprietary network element "impairs" a requesting carrier within the meaning of section 251(d)(2)(B) if, taking into consideration the availability of alternative elements outside the incumbent's network, including self-provisioning by a requesting carrier or acquiring an alternative from a third-party supplier, lack of access to that element materially diminishes a requesting carrier's ability to provide the services it seeks to offer.[226] In order to evaluate whether there are alternatives actually available to the requesting carrier as a practical, economic, and operational matter, the Commission examines the totality of the circumstances associated with using an alternative. Specifically, the Commission considers the cost, timeliness, quality, ubiquity, availability of the element from a third-party provider, and operational issues associated with use of the alternative.[227]

In requiring that ILECs provide unbundled access to the subloop, the Commission concluded that "lack of access to unbundled subloops at technically feasible points throughout the incumbent's loop plant will impair a competitor's ability to provide services that it seeks to offer..., and self-provisioning subloop elements, like the loop itself, would materially raise entry costs, delay broad-based entry, and limit the scope and quality of the competitive LEC's service offerings."[228] Indeed, the Commission concluded that subloop elements "are the most time-

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(...continued)
Broadband UNE. *See UNE Remand Order*, ¶ 208 ("The record does not indicate, nor do commenters argue, that subloops are proprietary. Moreover, we do not discern any copyright, patent, or trademark secrecy implications to subloop unbundling.")

226 *UNE Remand Order*, ¶¶ 51-100.

227 *Id.*

228 *UNE Remand Order*, ¶ 209.

consuming and expensive network element to duplicate on a pervasive scale, and that the cost of self-provisioning subloops can be prohibitively expensive."[229]

Applying these factors to the SEEL, the result of the analysis is the same: it is clear that self provisioning and third party supplier alternatives for transport and subloop elements are not cost-effective, ubiquitous, or timely available. Moreover, the lack of access to fiber feeder and necessary electronics materially diminishes requesting carriers' ability to provide competitive advanced services. Furthermore, the Commission acknowledged in the *UNE Remand Order* that "that the incumbent's network was not designed to house additional equipment of competitors."[230] Accordingly, the Joint Commenters submit that the Commission should take a double-barreled approach to this collocation crunch, by both amending its collocation rules to allow remote terminal collocation, *and* by amending its rules to recognize the SEEL as described herein.[231]

IX. THE COMMISSION SHOULD AMEND ITS RULES TO REQUIRE ILECS TO NOTIFY COMPETING CARRIERS AT LEAST TWELVE MONTHS PRIOR TO PLANNED ROLLOUT WHERE THEY ARE DEPLOYING FIBER LOOP FACILITIES AND SHOULD BE REQUIRED TO MAINTAIN EXISTING COPPER FACILITIES IN THOSE AREAS FOR A TEN-YEAR TRANSITION PERIOD

In its approving SBC's petition to modify the *Merger Conditions*, the Commission concluded that SBC's commitments to: (1) refrain from retiring any copper pairs for one year; (2) refrain from retiring (over a three year period) more than 5% of the copper pairs

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229 *Id.*, ¶ 212.

230 *UNE Remand Order*, ¶ 221.

231 In the alternative, the Commission should make clear that where NGDLC-provided loops are found in the ILEC network, they constitute a combination of UNEs, copper distribution subloop, multiplexer(s), and fiber feeder subloop that must be provided in combinations subject to Section 51.315(b) of the FCC rules.

terminated on the Main Distribution Frames of its central offices; (3) disclose the ILEC's general decision-making criteria for retiring any copper plant; (4) notify CLECs of its intent to retire any copper plant at least 180 days before such retirement; and (5) provide competitors with an opportunity to buy any copper plant marked for retirement at net book value or the highest competitive bid satisfied the public interest.[232] The Joint Commenters submit that the Commission, consistent with the disclaimer made by the Commission – that the action taken in the Pronto order in no way prejudged the outcome of this proceeding – should amend its rules as described in these comments.

Deployment of fiber-fed remote terminals can increase competition only if they supplement, but do not replace, the existing infrastructure used to reach consumers. As the Commission has recognized, the continued utility of competitive provider's investment in advanced services facilities is dependent upon access to suitable copper facilities to reach its customers. The Commission has acknowledged: "in cases where the incumbent multiplexes its copper loops at a remote terminal to transport the traffic to the central office over fiber DLC facilities, a requesting carrier's ability to offer xDSL service to customers served over those facilities will be precluded, unless the competitor can gain access to the customer's copper loop before the traffic on that loop is multiplexed."[233]

Under Project Pronto-type architectures, however, many of the customers targeted by competitive providers of advanced services will be served by remote terminals with a combination fiber/copper loop. Unless the Commission takes steps to ensure that competitors can continue to provide their services, regardless of whether SBC has deployed a remote

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232 *Project Pronto Order*, App. A.

terminal, Project Pronto will harm competition and will slow the deployment of advanced services technology in contravention of Section 706 of the 1996 Act.[234] Furthermore, the ILECs will be given carte blanche to perform an end-run around their Section 251(c)(3) unbundling requirements.

The solution to this problem is to 1) require ILECs to notify competitors at least 12 months prior to the deployment of remote terminals; and 2) require ILECs to continue to maintain their existing copper loop infrastructure so that these loops may be provided as network elements to requesting telecommunications carriers. The Commission should prohibit ILECs from removing currently in-service copper facilities when they overlay remote terminals over the existing architecture. As Jato proposed in the Project Pronto proceeding, ILECs that deploy Project Pronto-type network architectures should be required to maintain copper loop plant as unbundled network elements for at least a transition period of 10 years.[235] The Joint Commenters support adoption of that requirement here for all ILECs. The existing copper loops will continue to be useful for DSL and other purposes for at least this time period, especially if bridge taps or load coils necessary only for POTS service are removed from the loops. No pro-competitive purpose would be served by removing these valuable and still functional facilities from the pool of available loops. By contrast, preservation of these loops for a transition period

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(...continued)
233 *Id.*, ¶ 2.

234 Pub. L. 104-104, 110 Stat. 153, Title VII, § 706 (Feb 8, 1996), *codified at* 47 C.F.R. § 157, Note.

235 *See* Ex Parte Letter of Jato Communications, CC Docket No. 98-141 (May 23, 2000) ("*Jato Ex Parte*").

will ensure that carriers have access to network elements necessary to provide non-ADSL based services, now and in the future.

As Jato and other Commenters demonstrated in the Project Pronto proceeding, such a requirement does not require the Commission to expand the Commission's unbundling obligations.[236] The existing copper loops already deployed in the ILEC networks are "network elements" subject to Section 251(c)(3) obligations regardless of whether the ILEC deploys remote terminals in its service territory.[237] The Commission has already made clear that "dead count" loops and "vacant" copper in the network are within the definition of an unbundled loop.[238] Once an ILEC deploys fiber-fed remote terminals, the existing copper loop capacity becomes capacity that is "in place and easily called into service" as an unbundled local loop.[239] Therefore, even if the ILEC were not using these loops to serve their own customers, the copper should continue to be made available to competitive providers of DSL services such as Jato as an unbundled local loop network element.

Moreover, the obligation to provide these copper loops on an unbundled basis applies with full force to loops provided through DLC arrangements such as is proposed by SBC. The Commission's rules requires ILECs to "provide competitors with access to unbundled loops regardless of whether [the ILEC] uses integrated digital loop carrier technology, *or similar remote concentration devices*, for the particular loop sought by a competitor."[240] Often, ILECs provide access to DLC-served customers through the use of a "spare" copper loop that bypasses

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236 *Id.*

237 *Id.*

238 *See UNE Remand Order*, ¶ 174.

239 *Id.*

240 *Local Competition First Report and Order*, ¶ 383; *UNE Remand Order*, ¶ 218.

the DLC. As Jato explained in its *ex parte* in the Project Pronto proceeding, deployment of Project Pronto-type network architectures would, in effect, cause all of an ILEC's existing loops replaced by fiber to become "spare" loops.[241] Therefore, wherever an ILEC migrates a customer to the DLC environment proposed in a Project Pronto-type architecture, the ILEC has an obligation to provide unbundled loops to requesting carriers using the all-copper facilities. Accordingly, the Commission should amend its rules to make explicit this obligation.

241 *Jato Ex Parte.*